EUGENE

CITY

COUNTRY

12-24-49

7

Please type a plus sign (+) inside this box → ☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐	red to resp	Paten	t and Trademark Of	ffice: U.S. DE	gh 09/30/00. OI	F COMMERCE			
		Docket No.			Total Pages	22			
UTILITY	-	First Nam	ned Inventor or A	pplication Id	lentifier	- C			
PATENT APPLICATION	12 c	BERTA	1 Fair			250			
TRANSMITTAL 27 SER 1 52/4 N				c) 7111	5 ×11 ×	88			
Complete the mention of the second deposition of the second secon									
APPLICATION ELEMENTS See MPEP chapter 600 concerning utility patent application conte	ints.	ADDRE	ESS TO: Box P	tant Commis Patent Applic lington, DC		ents "			
Fee Transmittal Form     (Submit an original, and a duplicate for fee processing)	7)	6. N	licrofiche Compu	ter Program	ı (Appendix)				
2. Specification [Total Pages ]	١		ide and/or Amino	•	ence Submiss	ion			
(preferred arrangement set forth below) - Descriptive title of the invention	ے	`	cable, all necessa	••					
- Cross References to Related Applications		а. [		Readable C	• • •				
- Statement Regarding Fed sponsored R & D		b. [	Paper Cop	y (identical	to computer of	эору)			
<ul> <li>Reference to Microfiche Appendix</li> <li>Background of the Invention</li> </ul>		с.	Statement	verifying id	entity of above	e copies			
- Brief Summary of the Invention									
- Brief Description of the Drawings (if filed)		ACC	OMPANYING A	APPLICAT	ION PARTS	<u> </u>			
- Detailed Description		8/	Assignment Pape	rs (cover sh	ieet & docum	ent(s))			
- Claim(s)			37 CFR 3.73(b) S		Power	of Attorney			
- Abstract of the Disclosure	<b>,</b> ,		<i>(when there is an</i> English Translatio		t (if applicable	e)			
3. Drawing(s) (35 USC 113) [Total Sheets 2	== '		nformation Disclo	sure	• • •	s of IDS			
4. Oath or Declaration [Total Pages 2	1		Statement (IDS)/F		Citation	ns			
a. Newly executed (original or copy)  Copy from a prior application (37 CFR 1	1 63(4))	1 —	reliminary Amen		NED 502\				
b. (for continuation/divisional with Box 17 complete Box 5 below)	isted)		Return Receipt Po Should be specifi	fically itemize	ed)				
i. DELETION OF INVENTOR(S) Signed statement attached dele	etina	114 1	Small Entity Statement(s)		nt filed in prior Il proper and o				
inventor(s) named in the prior app	plication,	1151	Certified Copy of F		ıment(s)				
see 37 CFR 1.63(d)(2) and 1.33(l)  Incorporation By Reference (useable if Box 4b is called a second	hecked)	16	other:	3 Claimica)					
The entire disclosure of the prior application, fro copy of the oath or declaration is supplied under				· • • • • • • • • • • • • • • • • • • •		• • • • • • • • • • • • • • • • • • • •			
is considered as being part of the disclosure of	the								
accompanying application and is hereby incorporate reference therein.	rated by				••••••				
17. If a CONTINUING APPLICATION, check appropriate	e box and	supply the req	uisite information	1:					
Continuation Divisional Continuation	⊢in-part (Cli	P) of prid	or application No: _						
18. CORRES	PONDE	NCE ADDRE	SS						
Customer Number or Bar Code Label  (Insert Customer No. or Attach bar code label here)									
ROBERT M. FOUS					-				
NAME									
ADDRESS 2706 MOUNTAIN D	R.								

Burden Hour Statement. This form is estimated to take 0.2 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, Patent and Trademark Office, Washington, DC 20231 DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO. Assistant Commissioner for Patents, Box Patent Application, Washington, DC 20231

STATE

TELEPHONE

97403

541-242-1036

ZIP CODE

FAX

PTO/SB/09 (10-96)
Approved for use through 10/31/99. OMB 0851-0031
Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a velid OMB control number.

VERIFIED STATEMENT CL/ 37 CFR 1.9(f) & 1.27(b))—IND	AIMING SMALL ENTITY STATUS PEPENDENT INVENTOR	Docket Number (Optional)
Applicant or Patentee: ROB	eng M. Fors	
Application or Patent No.:	LITY PATENT	
Filed or Issued:		
Title: ENGONOMIC FIE	LOINE GLOVE	
	eby declare that I qualify as an independent in uced fees to the Patent and Trademark Office	
the specification filed here	with with title as listed above.	
the application identified al	bov <del>e</del> .	
the patent identified above	<b>.</b>	
grant, convey, or license, any right under 37 CFR 1.9(c) if that perso	nveyed, or licensed, and am under no obligation ts in the invention to any person who would not on whad made the invention, or to any concern w 1.9(d) or a nonprofit organization under 37 CFI	qualify as an independent inventor which would not qualify as a small
	zation to which I have assigned, granted, conv o assign, grant, convey, or license any rights i	
No such person, concern	n, or organization exists.	
Each such person, conc	ern, or organization is listed below.	
invention averring to their status	,	
entitlement to small entity status	his application or patent, notification of any ch s prior to paying, or at the time of paying, the ite on which status as a small entity is no longe	e earliest of the issue fee or any
information and belief are believed willful false statements and the lik of Title 18 of the United States C	its made herein of my own knowledge are true ditobetrue; and further that these statements w se so made are punishable by fine or imprison Code, and that such willful faise statements n ereon, or any patent to which this verified state	ere made with the knowledge that nent, or both, under section 1001 hay jeopardize the validity of the
NAME OF INVENTOR  RUE M. Fous	NAMEOFINVENTOR	NAME OF INVENTOR
Signature of inventor	Signature of inventor	Signature of inventor
Date	Date	Date

The state of the s

20

U. S. Patent Application of:

Robert M. Fous

"Express Mail" mailing label number EM 04537444005
Date of Deposit: 12 27 99

I hereby certify that this correspondence, including the attachments listed on the accompanying New Utility Patent Application Transmittal, is being deposited with the United States Postal Service "Express Mail Post Office to Addressee" service under 37 CFR 1.10 on the date indicated above and is addressed to the Commissioner of Patents and Trademarks, Washington, D.C. 20231.

(Typed or printed name of person mailing paper or fee)

(Signature of person mailing paper or fee)

10

20

### **Ergonomic fielding glove**

This application is based on the provisional application titled: Two finger baseball/softball filelding glove, file dated 02/04/99, application number: 60/118,543

BACKGROUND OF THE INVENTION

This invention relates generally to the field of athletic equipment, and more particularly to an ergonomic fielding glove to be used in sports such as baseball, softball or the like.

Traditional four finger and three finger baseball or softball fielding gloves are designed along the form of an open hand. The glove is made with an outer shell and an inner compartment that contains the hand and positions it within the glove with the fingers extending into the finger slots of the outer shell. If you remove the glove from the hand, and view the hand as it was positioned in the glove, the thumb of the hand is rotated forward towards the palm at approximately 45 degrees from the plane of the hand and fingers. The fourth finger is also drawn forward slightly, positioned so that the thumb and fourth finger, when drawn towards each other, act to close the outer, vertical edges of the glove. The first, second and third fingers of the hand within the glove can close down around a ball, with a small amount of force but have little effect on the actual closing of the glove's outer vertical edges. The action of closing the glove's outer vertical edges, seals the ball inside the glove, after it is caught. This action is similar to closing a bare hand around a round object. The thumb and fourth finger close towards each other around the outside of the ball, the

15

20

three fingers between the thumb and fourth finger close over the top. This limits the main force of closure to the thumb and the fourth, or smallest finger.

The positioning of the hand within the previously designed three or four fingered baseball/softball fielding gloves, overall, forms a pocket in the palm of the hand. Within the glove the palm of the hand is centered in the pocket of the glove. Between the valley of the thumb slot and index or first finger slot of the outer shell of the glove is the web. The fixed angle between the thumb and index finger within the outer shell of the glove is approximately 55 degrees in a traditional baseball/softball fielding glove.

In these previous fielding glove designs, the only surface area of the glove where the hand is not exposed to the force of the ball striking it is the web and the extended length of each of the glove's fingers. The palm of the glove and the web are the area where most of the balls are caught within the glove. The ball is either caught entirely in the pocket, or strikes the pocket and glances up into the web, or can be caught entirely in the web. A high percentage of time the ball strikes the pocket, and consequently the palm of the hand and fingers. Players wearing a previously designed glove frequently experience bruises, swelling, pain, and in some cases more serious damage from the impact of the ball striking the glove in the pocket area. Fielders wearing these previously designed gloves often removed their index finger from within the index finger slot and placed it outside the glove, against the back of the index finger slot, to put a little more padding between their finger and the impact of the ball striking the glove. Eventually manufacturers began cutting a hole in the back of the index finger slot to accommodate removal of the index finger

from within the slot. Various padded inserts have been used to try to reduce the impact of a ball striking the pocket, and consequently the palm of the hand.

In previous baseball/softball fielding glove designs the inside of the wrist is exposed beneath the heal of the glove, below the palm. Fielders wearing a glove without wrist protection often have the experience where a ball takes an unexpected hop and instead of landing in the glove, impacts the inside of the wrist. The force of the ball impacting the inside of the wrist can be so great that it imprints the wrist with the outline of the seams of the ball after such an incident as well as attendant pain and bruising.

10

15

20

5

#### SUMMARY OF THE INVENTION

The primary object of the invention is to increase the closing pressure of a fielding glove catching a ball, decreasing the ball's tendency to pop loose when fielded or applying a tag to a base runner.

Another object of the invention is to decrease exposure and damage to the palm of the hand from the blunt force of a rapidly moving ball striking the pocket of the glove.

Another object of the invention is to reduce the tendency of a ball to ricochet out of the web area of the glove.

A further object of the invention is to provide protection for the inside of the wrist from a thrown or batted ball.

10

15

20

In accordance with a preferred embodiment of the present invention, a fielding glove comprises an outer shell having at least one finger portion, a thumb portion, and a web joining the thumb portion and the nearest finger portion; at least one interior finger compartment designed to accommodate at least one finger positioned within the outer shell; and an interior thumb compartment designed to accommodate a thumb positioned within the outer shell where the angle between the interior thumb compartment and the nearest interior finger compartment is approximately 90 degrees.

In accordance with another preferred embodiment of the present invention, a fielding glove comprises an outer shell with two finger slots, and a thumb slot, with a web in the valley between the thumb and first finger, an interior mitten compartment that holds all four fingers, positioned and fixed within the outer shell at an angle of approximately 40 degrees in relation to the upright finger slots of the outer shell of the glove, and a fixed angle between the thumb and index finger position of the interior mitten of approximately 90 degrees.

In another embodiment, the fielding glove has a padded, flexible, contiguous extension of the palm heel of the aforementioned glove's outer shell that extends over the inside of the wrist.

In a further embodiment, the fielding glove has a billowing, flexible web attached between and slightly larger than the span between the thumb and first finger of the aforementioned outer shell.

Other objects and advantages of the present invention will become apparent from the following descriptions, taken in connection with the accompanying

drawings, wherein, by way of illustration and example, an embodiment of the present invention is disclosed.

#### BRIEF DESCRIPTION OF THE DRAWINGS

The drawings constitute a part of this specification and include exemplary embodiments to the invention, which may be embodied in various forms. It is to be understood that in some instances various aspects of the invention may be shown exaggerated or enlarged to facilitate an understanding of the invention.

Figure 1 is a partially cut-away perspective view of the back side of the ergonomic fielding glove according to a preferred embodiment of the present invention.

Figure 2 is a perspective view of the front side of the embodiment of Figure 2.

15

10

5

15

20

#### DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS

Detailed descriptions of the preferred embodiment are provided herein. It is to be understood, however, that the present invention may be embodied in various forms. Therefore, specific details disclosed herein are not to be interpreted as limiting, but rather as a basis for the claims and as a representative basis for teaching one skilled in the art to employ the present invention in virtually any appropriately detailed system, structure or manner.

The following description of the preferred embodiment is for a right-handed person having the fielding glove on the left hand. It will be appreciated that the invention may be adapted to a left-handed person having the fielding glove on the right hand.

As the preferred embodiment shown in Figure 1, the geometry of the hand's position within the outer shell 17 of the fielding glove is realigned from that of the conventional glove design. The number of finger slots in the outer shell of the glove has been reduced, and in the illustrated embodiment is two. A separate mitten shaped finger compartment 16 inside the outer shell is designed to accommodate the fingers and is aligned at an angle of approximately 40 degrees in relation to the two upright finger slots 10, 11 of the glove's outer shell. The fingers of the hand are positioned inside the outer glove, within the mitten 17 and shown in Figure 1 by the dotted lines. The angle between the thumb and index finger in the mitten is approximately 90 degrees. When they close, all four fingers of the hand are moving towards the thumb and vice-versa. This movement closes the outer edge of the

15

20

outer shell outside finger 10 towards the outer edge of the outer shell thumb 12 with approximately 4 times the closing pressure of a conventional baseball/softball fielding glove. This improvement in closing leverage, reduces the tendency of the ball to escape the glove when catching a thrown or hit ball, or when applying a tag to a base runner. The more force applied to closure the less likely the ball will pop loose.

The angle between the thumb and index finger within the ergonomic fielding glove is increased from approximately 55 degrees in a traditional baseball/softball glove to approximately 90 degrees. The increased angle between the thumb and index finger within the interior mitten, as well as the fact that all four fingers are now closed together rather than widely separated by the individual finger slots of a traditional glove, increases the area of the pocket where there will be no impact on the hand.

This new ergonomic design increases the volume of the pocket and web area, and reduces the surface area that exposes the palm and fingers to damage from a high velocity, hard ball striking the palm in the pocket of the glove by approximately 30%. The potential damage to the palm or fingers of the hand is greatly lessened. This design reduces the tendency of the ball impacting and damaging the palm of the hand or the fingers because there is additional room to catch the ball within the web and pocket area where the palm is not exposed.

Turning to the billowing web15 in the preferred embodiment, it has a star shape with a central disk 14 and strands that radiate out to the interior edges of the outer shell thumb and first finger. The star web also has s a bridge of material 13

10

15

20

that spans the upper edge of the thumb and first finger. It could also employ a standard web drawn from the many varieties in the public domain. The billowing web 15 allows for a netting effect to trap the ball and reduce ricochet. The billowing is accomplished by making the web 15 of a flexible material slightly larger than the space within the plane between the first finger of the outer shell and the thumb. The star web 15 would have a donut shaped ring 14 of leather or other appropriate material in the center of the web, with the legs of the web being a leather or other appropriate material that looped around the donut, then radiated back to the edges of the glove in a star pattern.

The lower heel area of the glove is expanded by adding a flap 18 of padded leather or other material, that covers the inside wrist area below the palm. This preferred embodiment is a contiguous extension of the heel of the outer shell held in place when the glove is worn, by an adjustable strap 19 that wraps around the wrist. The strap is fastened by a hook and loop fastener, or a velcro fastener or other appropriate mechanism

In the preferred embodiment as displayed, within the thumb slot of the mitten is an adjustable thumb strap 19 of leather or other appropriate material for added leverage and comfort of a particular size hand. A similar strap is located on the outer edge of the mitten compartment 18 to accommodate one or more fingers for a similar purpose as described for the thumb. In the preferred embodiment, it is shown enclosing the third and fourth fingers.

While the invention has been described in connection with a preferred embodiment, it is not intended to limit the scope of the invention to the particular

form set forth, but on the contrary, it is intended to cover such alternatives, modifications, and equivalents as may be included within the spirit and scope of the invention as defined by the appended claims.

#### **CLAIMS**

5

10

15

What is claimed is:

1/

A fielding glove comprising:

an outer shell having at least one finger portion, a thumb portion, and a web joining the thumb portion and the nearest finger portion;

at least one interior finger compartment designed to accommodate at least one finger positioned within the outer shell; and

an interior thumb compartment designed to accommodate a thumb positioned within the outer shell;

where the angle between the interior thumb compartment and the nearest interior finger compartment is approximately 90 degrees.

- A fielding glove as claimed in claim 1 wherein at least one interior finger compartment is designed to accommodate all four fingers.
- A fielding glove as claimed in claim 1 wherein the outer shell has an extension that extends over the inside of the wrist and is held in place by a wrist strap.

20

 a fielding glove as claimed in claim 3 wherein the extension is a separate padded leather piece or other appropriate material.

- 5. A fielding glove as claimed in claim 1 wherein the web is slightly larger than the span between the thumb and nearest finger of the outer shell.
- 6. An apparatus as claimed in claim 5 wherein said web comprises a donut shaped disk centered in the aforementioned valley between the thumb slot and nearest finger slot, with straps attached to the disk that radiate out from the circumference of the disk in a star pattern attaching to various points along the edges of the aforementioned thumb and index finger and to a strap the bridges the tips of the thumb and nearest finger.

7. An apparatus as claimed in claim 5 wherein said web conforms to the curved plane in the space between the thumb and nearest finger.

15

20

#### ABSTRACT OF THE DISCLOSURE

A fielding glove has an outer shell having at least one finger portion, a thumb portion, and a web joining the thumb portion and the nearest finger portion; at least one interior finger compartment designed to accommodate at least one finger positioned within the outer shell; and an interior thumb compartment designed to accommodate a thumb positioned within the outer shell; where the angle between the interior thumb compartment and the nearest interior finger compartment is approximately 90 degrees. The interior finger compartment may be designed to accommodate all four fingers and the outer shell has two finger portions. There is also wrist protection provided.

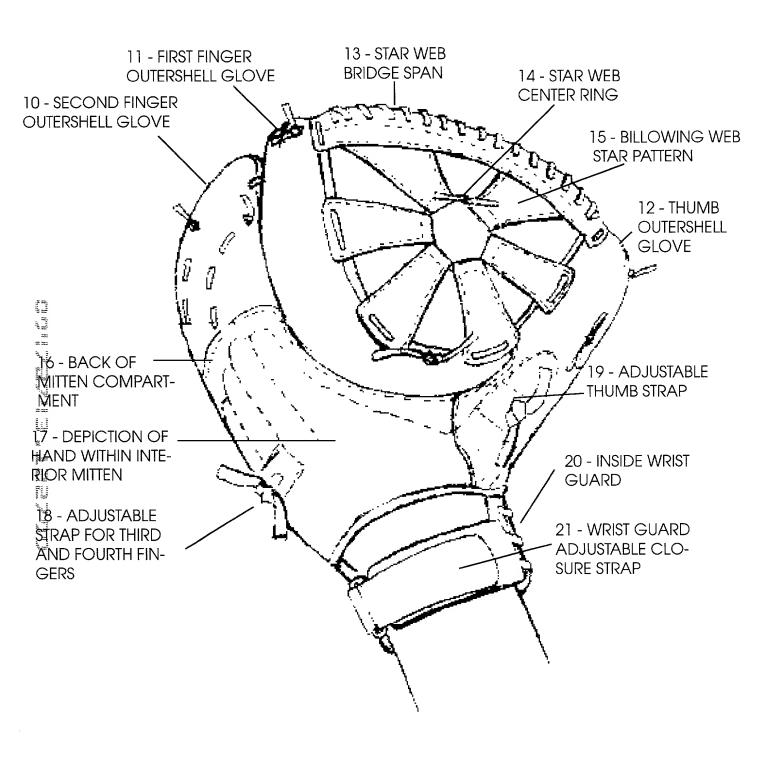
15

10

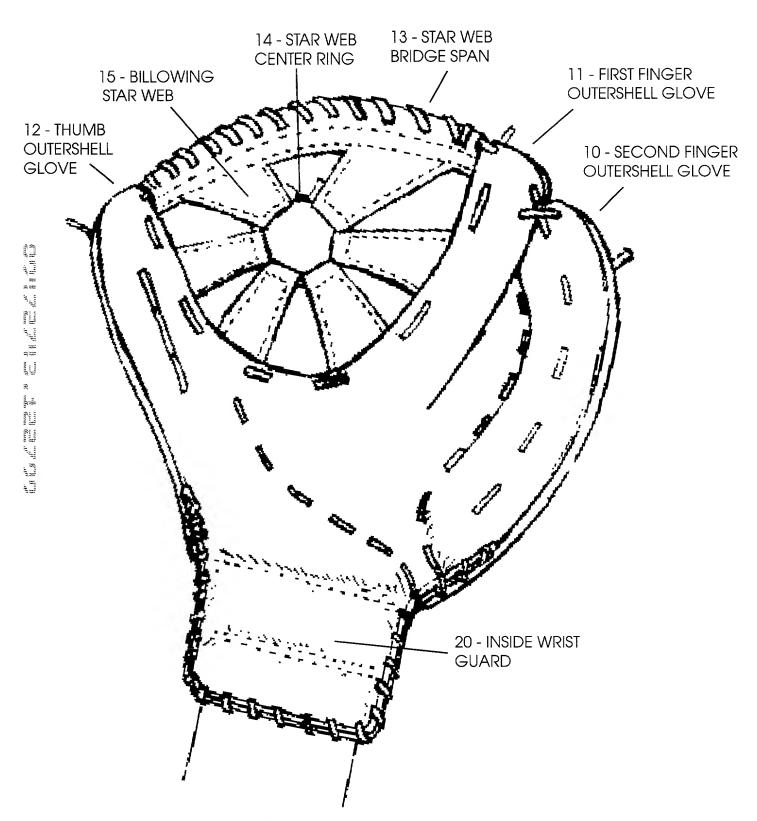
5

20

## ERGONOMIC FILEDING GLOVE FIGURE 1 PARTIALLY CUT AWAY PERSPECTIVE - BACK SIDE



## ERGONOMIC FILEDING GLOVE FIGURE 2 PERSPECTIVE VIEW - FRONT SIDE



	1	
•	T	

PTO/SB/01 (8-96)
Please type a plus sign (+) inside this box 
Approved for use through 9/30/98. OMB 0651-0032
Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

	Attorney Docket Number					
DECLARATION FOR	First Named Inventor	ROBEM M. FOUS				
UTILITY OR DESIGN	COMPLETE IF KNOWN					
PATENT APPLICATION	Application Number					
	Filing Date					
Declaration OR Declaration	Group Art Unit					
Submitted Submitted after with Initial Filing Initial Filing	Examiner Name					

				·		-					
As a below named inventor, I hereby declare that:											
My residence, post office addr	My residence, post office address, and citizenship are as stated below next to my name.										
I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled:											
ERGONOMIC FIELDING GEOVE											
		(Title of the In	rvention)								
the specification of which  is attached hereto  OR  was filed on (MM/DD/	m [		asu	Inited States Applic	ation Number or PCT intern	ational					
Mes and out (manuscon)	· ' ' <u> </u>										
Application Number		and was arriv	anded on (MM/DD/YY	m [	(1	i applicable).					
I hereby state that I have reviewed and understand the contents of the above identified specification, including the claims, as amended by any amendment specifically referred to above.											
I acknowledge the duty to dis	sclose information	n which is material to pat	entability as defined i	n Title 37 Code of I	ederal Regulations, § 1.56.						
I hereby claim foreign priority benefits under Title 35, United States Code §119 (a)-(d) or § 365(b) of any foreign application(s) for patent or inventor's certificate, or §365 (a) of any PCT international application which designated at least one country other than the United States of America, listed below and have also identified below, by checking the box, any foreign application for patent or inventor's certificate, or of any PCT international application having a filing date before that of the application on which priority is claimed.											
Prior Foreign Application Number(s)	Cos	untry	Foreign Filing Dat (MM/DD/YYYY)		Certified Copy Atta YES N						
				000000							
Additional foreign application	n numbers are ils	sted on a supplemental p	i riority sheet attached	hereto:							
I hereby claim the benefit under Title 35, United States Code § 119(e) of any United States provisional application(s) listed below.											
Application Number(s)		Filing Date (MM/	DD/YYYY)	Additional provisional application							
60/118,543		02/04/99		numb suppl attack	a heet						

# **DECLARATION**

ı	hereby claim the benefit under Title 35, United States Code §120 of any United States application(s),	, or §365(c) of any PCT international application
C	lesignating the United States of America, listed below and, insofar as the subject matter of each of the	claims of this application is not disclosed in the
Ķ	prior United States or PCT International application in the manner provided by the first paragra	aph of Title 35, United States Code §112, I
8	cknowledge the duty to disclose information which is material to patentability as defined in Title	37. Code of Federal Regulations \$1.56 which
t	ecarne available between the filing date of the prior application and the national or PCT international f	filing date of this application.
-		

acknowledge the duty to disclose information which is material to patentability as defined in Title 37, Code of Federal Regulations §1.56 which became available between the filling date of the prior application and the national or PCT international filling date of this application.														
· · · · · · · · · · · · · · · · · · ·	Parent Application PC			PCT	CT Parent Number			Parent Filing Date (MM/DD/YYYY)			1	Parent Patent Number (if applicable)		
							l							
Addition	al U.S. or	PCT international	application	numb	ers are li	sted a	n a suppl	emen	ital priority s	heet attach	ned hereto.	<del></del>	<del>, , , , , , , , , , , , , , , , , , , </del>	····
		hereby appoint the connected therewi		registe	ered prac	tilione	r(s) to pro	Secu	ite this appli	cation and	to transact	all business	in the F	atent
<u> </u>	<del></del>	Name	·		Registr Numi				<del>,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,</del>	Name			Registration Number	
										·····	· · · · · · · · · · · · · · · · · · ·		+	1 dest (town)
				1										
				l							· ·			
				1										
Additio	nal regis	tered practitione	(s) name	d on a	a supp <del>le</del>	ment	al sheet	attac	hed hereto	).		· · · · · · · · · · · · · · · · · · ·	<u> </u>	· · · · · · · · · · · · · · · · · · ·
Direct all co	orrespond	dence to:			<del></del>				********			-		
Name	Rev	BENT M. FO	N 5			***************************************		***********					<del>U</del>	<u>.,, .,, .,, .,, ,,, ,,,,,,,,,,,,,,,,,,</u>
Address		6 MOUN		DAIA	) Dn	<del> </del>	<del>- 4,</del>							
Address	7-10	, , , , , , , , , , , , , , , , , , , ,				<del></del>			<del></del>	****	<del></del>	······································		
City	EV	GENE			<del></del>			St	rte $\epsilon$	OR.		ZIP C	1740	3
Country		15A			phone		41-24					541-24		
		statements made at these statement												
		under Section 10 catent issued there		18 of 1	the Unite	d Stat	es Code	and t	hat such wil	ful false st	latements in	ay jeopard	ize the v	alidity of
Name of	Sole or	First Inventor:				<del></del>		] A	petition ha	s been fil	ed for this	unsigned	invento	r
Given Name	R	OBERT			Middle Initial	M	Famil Name		Fo	JS		1	Suffix e.g. Jr.	
													•	
Investor's Signature Ruth. For 12/22/99							<u> 19</u>							
Residence:	City	EUGEN	E		State	OR	Country		USA			Citize	nship	USA
Post Office	Address	2706	Moo	N I	MOV	NTA	12 0	n.						
Post Office	Address	- 1				· · · · · ·								<u> </u>
City E	VEEN	JÉ	State	OR	Zip	91	403		Country	USA			<del>, , , ,</del>	
☐ Additi	onal inv	entors are beir	ng name	d on	supple	-	كرث استدادات	t(s)	attached	hereto			<del>/</del>	